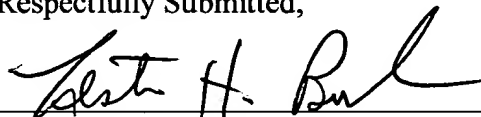


light so that a portion of the face light is reflected from the photodetector and the photodetector receives primarily direct light from the face.

It is respectfully submitted that Examiner has not fully appreciated the distinctions of the present claimed invention over the cited reference. It will be noted that Nakanishi et al's module is designed to transmit light in one direction and receive light having a different wavelength in the opposite direction. (See, e.g., column 3, lines 12-15.) In the example shown in Fig 8, the laser (98) emits 1.3 micron light and receives 1.55 micron light from somewhere else in the system. (See, e.g., column 5, line 47-column 6, line 4.) It is the received light of 1.55 microns which is reflected to the photodetector (96). Thus, there is no surface positioned to receive a portion of the face light from the light emitting device and reflect it away from the photodetector so that the photodetector receives primarily direct light from the face as required by claims 1, 10, 11, 12, and 13.

It is submitted, therefore, that the Nakanishi et al reference neither teaches nor renders obvious the claimed invention, and claims 1,10,11,12, and 13 should be allowable. All other claims are dependent upon one of these claims, and should be allowable without the need for further discussion.

Respectfully Submitted,



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Dated: 11/25/62



COMPUTER RED-LINED VERSION

Amendment for Office Action dated 8/28/2002

In the claims

Please amend the claims as follows:

Replacement Claim 1:

- 1 1. An optical assembly comprising:
- 2 a substrate;
- 3 a light emitting device mounted over a major surface of the substrate and having a
- 4 face;
- 5 at least one channel formed in the substrate near the face of the light emitting
- 6 device; and
- 7 at least one photodetector optically coupled to the light emitted from the face, the
- 8 channel including at least one surface ~~adapted~~ positioned to receive a portion of the face
- 9 light and reflect it away from the photodetector so that the photodetector receives
- 10 primarily direct light from the face.

Replacement Claim 10:

- 1 10. An optical assembly comprising:
- 2 a substrate comprising silicon;
- 3 a semiconductor laser mounted over a major surface of the substrate and having a
- 4 back face;
- 5 at least one V- groove formed in the substrate near the back face of the laser, the
- 6 groove including surfaces formed in the <111> crystallographic plane of the substrate; and
- 7 an ~~array~~ array of photodetectors optically coupled to light from the back face of the
- 8 laser,

9 at least one of the surfaces of the V-groove ~~adapted~~ positioned to receive a portion
10 of the light from the backface and reflect it away from the photodetectors so that the
11 photodetectors receive only direct light from the back face.

1
Replacement Claim 11:

1 11. An optical transmitter comprising an optical assembly, an optical filter
2 optically coupled to the assembly, at least one photodetector optically coupled to the
3 filter, and control circuitry electrically coupled to the photodetector, the assembly
4 comprising:
5 a substrate;
6 a light emitting device mounted over a major surface of the substrate and having a
7 face;
8 at least one channel formed in the substrate near the face of the light emitting
9 device, the photodetector being optically coupled to the light emitted from the face, and
10 the channel including at least one surface ~~adapted~~ positioned to receive a portion of the
11 face light and reflect it away from the photodetector so that the photodetector receives
12 primarily direct light from the face.

Replacement Claim 12:

1 12. An optical network comprising a transmitter, an optical fiber optically coupled
2 to the transmitter, and a receiver optically coupled to the fiber, the transmitter comprising
3 an optical assembly comprising:
4 a substrate;
5 a light emitting device mounted over a major surface of the substrate and having a
6 face;
7 at least one channel formed in the substrate near the face of the light emitting
8 device; and
9 at least one photodetector optically coupled to the light emitted from the face, the
10 channel including at least one surface ~~adapted~~ positioned to receive a portion of the face
11 light and reflect it away from the photodetector so that the photodetector receives
12 primarily direct light from the back face.

Replacement Claim 13:

- 1 13. A method of forming an optical assembly comprising the steps of:
- 2 mounting a light emitting device having a face over a major surface of a substrate;
- 3 mounting a photodetector so as to receive light emitted from the face; and
- 4 forming a channel in the substrate in close proximity to the face, the channel
- 5 including at least one surface ~~adapted~~ positioned to receive a portion of the light from the
- 6 face and reflect it away from the photodetector so that the photodetector receives
- 7 primarily direct light from the face.